

United States Department of the Interior Fish and Wildlife Service		
Fishery Leaflet 164		LIBRARY FISH & WILDLIFE SERVICE PACIFIC OCEANIC FISHERY INVESTIGATIONS
Chicago, Ill.	*	February 1946

Alligators

Prepared in the Division of Fishery Biology

The alligator belongs to the Order Crocodilia which inhabits the warmer portions of the globe, in regions of tropical vegetation, swamps, sluggish waters and humid atmosphere. These animals are our largest reptiles, one species attaining a length of 30 feet. They were once distributed throughout the world, indicated by fossils, but the living representatives of the order are confined to the semi-tropical regions, a few straying out of these areas into low coastal regions warmed by currents from the tropics.

Among the 21 species of crocodilians there are only two alligators, one inhabiting North America and the other the Yangtse-Kiang River in China. There is but little structural difference between a crocodile and an alligator. The American alligator (Alligator mississippiensis), inhabiting the southeastern portion of the United States, is distinguished from the American crocodile as follows:

Entire head broad; bluntly rounded at snout.

The Alligator, Alligator mississippiensis

Head triangular; becoming narrow toward snout.

The Crocodile, Crocodylus americanus

A discussion of other structural differences may be found in Ditmars' "Reptiles of the World" published by Strugis & Walton, New York, 1910.

Several species of the crocodiles, among them the salt-water crocodile (Crocodylus porosus), and the African crocodile (C. niloticus) are notoriously dangerous to man. The man-eating species are, however, in the minority. Most of the crocodiles will rush to cover at sight of man. The American species seem to be particularly inoffensive, though some grow to huge proportions. It is probably, however, that certain particularly large individuals of any species might be tempted to attack a man if he audaciously goes in bathing in their haunts.

Alligators become adult at 5 or 6 years of age. The males may be distinguished by the scent glands on the under surface of the chin, which emit fine jets of a powerful musky smelling fluid during the process of bellowing.

The nest of the alligator consists of a mound of dead leaves and twigs about 8 feet in diameter and 2 or 3 feet high. The eggs are well buried, closely packed, and range from 3 to 5 dozen number. The eggs are white, shining, and with a thick, hard shell. They are somewhat larger than a hen's egg, being about the same diameter, but more elongate. The female sometimes deposits the eggs in a hole dug in a sand bank. Mr. Ditmars states that some eggs collected by him the middle of August began hatching the first week in October.

Although it is believed generally that alligators grow slowly, observations made by R. L. Ditmars, Curator of Reptiles in the New York Zoological Park, show that they easily reach an adult development within five or six years. At the time of hatching the young are 3 inches long; at 1 year their average length

is about 13 inches, at $2\frac{1}{2}$ years they reach a length of 3 feet, 9 inches. Subsequent growth is steady and rapid under favorably conditions.

Very large alligators are rare nowadays, and a 12-foot specimen would be considered a giant. There was time in Florida when alligators 14 and 15 feet long were of no great rarity, but it is doubtful if there is an individual living in Florida today that can approach such measurements. The alligator is becoming rare in most sections of the south and extermination is not far distant. The commercial value of the hides has been an important factor in thinning its numbers, it being estimated that over two million were killed in Florida between 1880 and 1894. Many are also killed for sport. The indiscriminate collection of the young also assists in the reduction of numbers. Young alligators frequent shallow waters to avoid falling prey to large fish and turtles. In such places they are easily captured. They are sold to curio dealers, thence to tourists from the North who carry them away to endure a slow death from starvation.

The alligator is very voracious, its food consisting of fish, mammals, and birds. The young feed mostly on fish, together with frogs, tadpoles, and insects.

The foregoing information is abstracted from the Reptile Book and "Reptiles of the World," by R. L. Ditmars. Further information regarding alligators and crocodiles may be found in the following books:

Stevenson, Charles H. - Utilization of the skins of aquatic animals. (Leather from alligator skins, p. 342.) In Report of the U. S. Commissioner of Fisheries, Part 28, 1902. Out of print, consult in libraries.

Smith, Hugh M. - Report on the fisheries of the south Atlantic States. (Notes on the alligator industry, p. 343.) In Bulletin, U. S. Bureau of Fisheries, Vol. XI, for 1891. Out of print.

Ditmars, R. L. - The Reptile Book. Published by Doubleday, Page & Co., New York, 1907. (472 pages.) Price about \$4.00.

Ditmars, R. L. - Reptiles of the World. Published by Sturgis & Walton, New York, 1910. (372 pages.) Price about \$5.00.

Reese, Albert M. - The Breeding Habits of the Florida Alligator. Published in the Smithsonian Miscellaneous Collections. Vol. 48, 1907. pp. 381-387.

Reese, Albert M. - The Development of the American Alligator, published in Smithsonian Miscellaneous Collections, No. 1791, Vol. 51, 1908, pp. 1-66.

Alligators: How to keep them down on the farm. In Literary Digest for Sept. 15, 1923, pp. 54-55. Published by Funk & Wagnalls, New York City.

Except in the breeding season there appears to be no sure way to differentiate the sexes at sight.

There is, or has been, an alligator "farm" at each of the following places:

Palm Beach, Florida.
Los Angeles, California.
Tampa, Florida.
Jacksonville, Florida.

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200

Feb. 1946